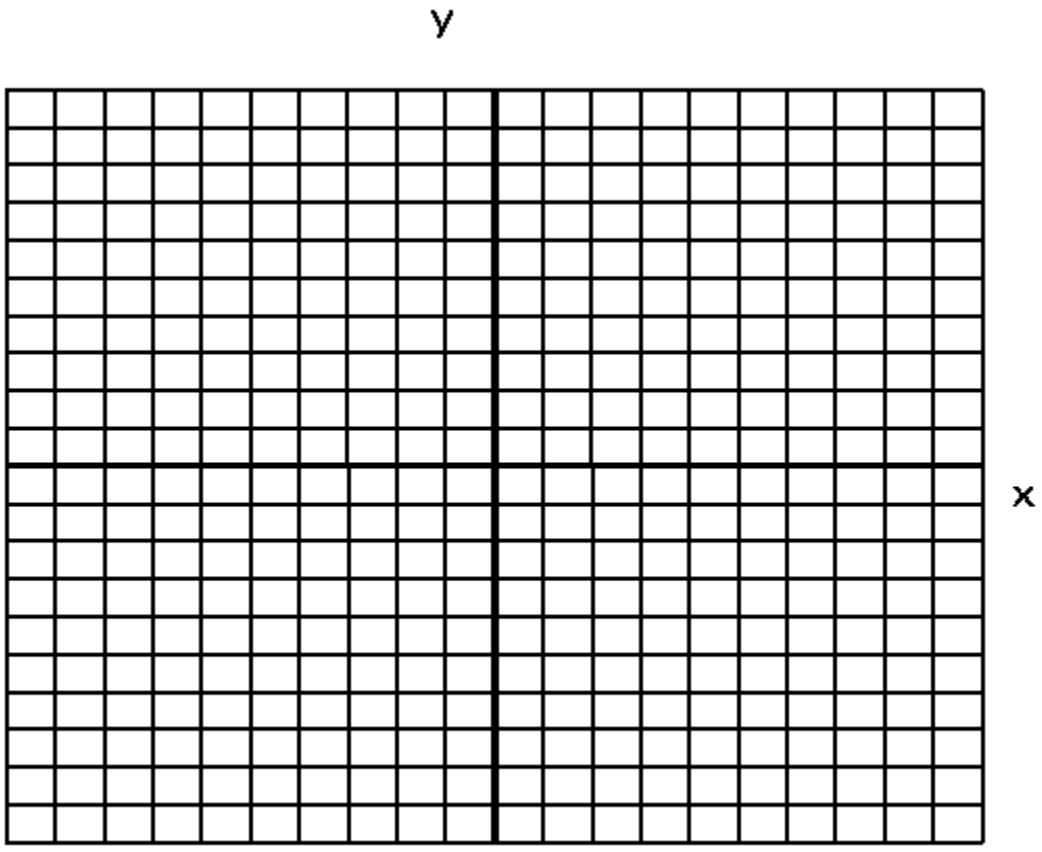
Full Name: _____ TA#: _____Date: _____

Math 10 F LG 12 Ver. B **Total Marks _____/ 25**
_____ %

Expectation #1: Solve systems of linear equations graphically.

1. Determine the point of intersection of the lines $y = -3x + 7$ and $y = -\frac{1}{2}x + 2$ by graphing. Show all your work for full marks. (4 marks)



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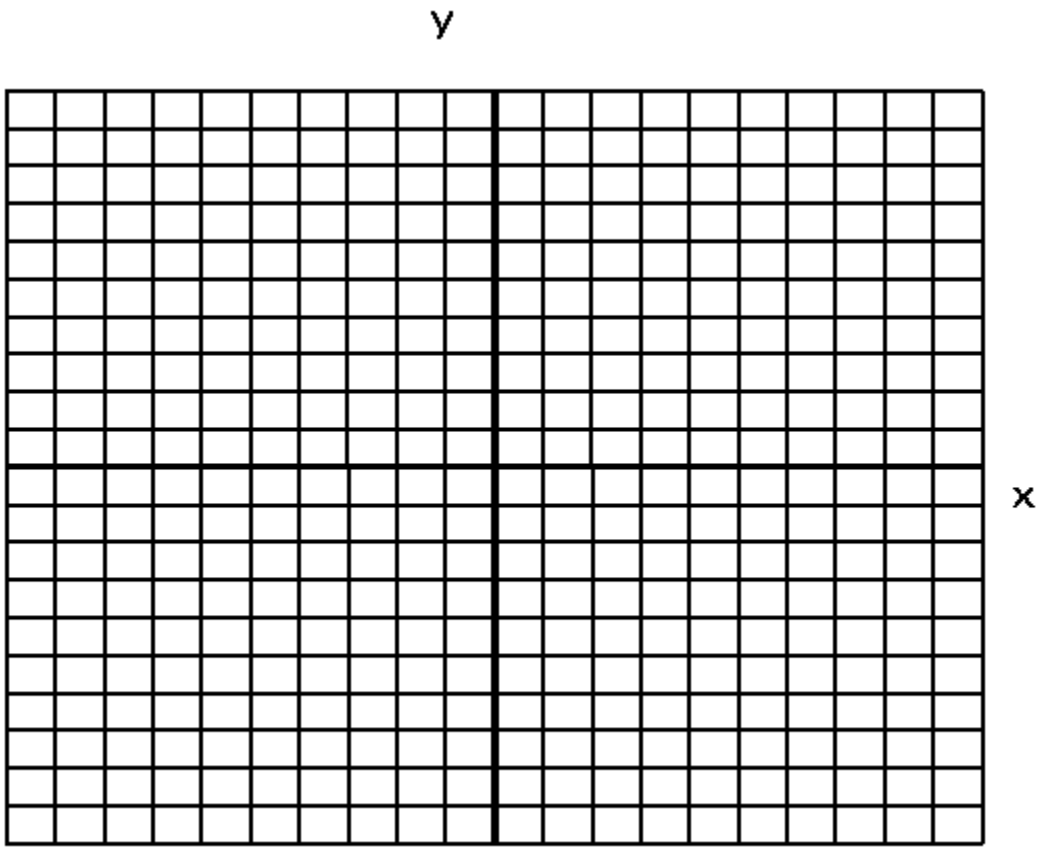
2. Solve the following system of equations by graphing: $2x - y = 2$ and $2x + y = 6$
Show all your work for full marks. (4 marks)



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Expectation #2: Model and solve linear systems of equations.

3. Write a system of linear equations to model the following situation:
Becky and Mario are both limousine chauffeurs. For a ride, Becky charges $55, while Mario charges $40. In addition, they each charge an hourly rate. Becky charges $15/h and Mario charges $20/h. One day, their charges for two limousine rides were the same.
   (a) What did Becky and Mario charge when both of their rides cost the same amount?
   (b) How long did each work when both of their rides cost the same amount?
   Show all your work for full marks. (4 marks)

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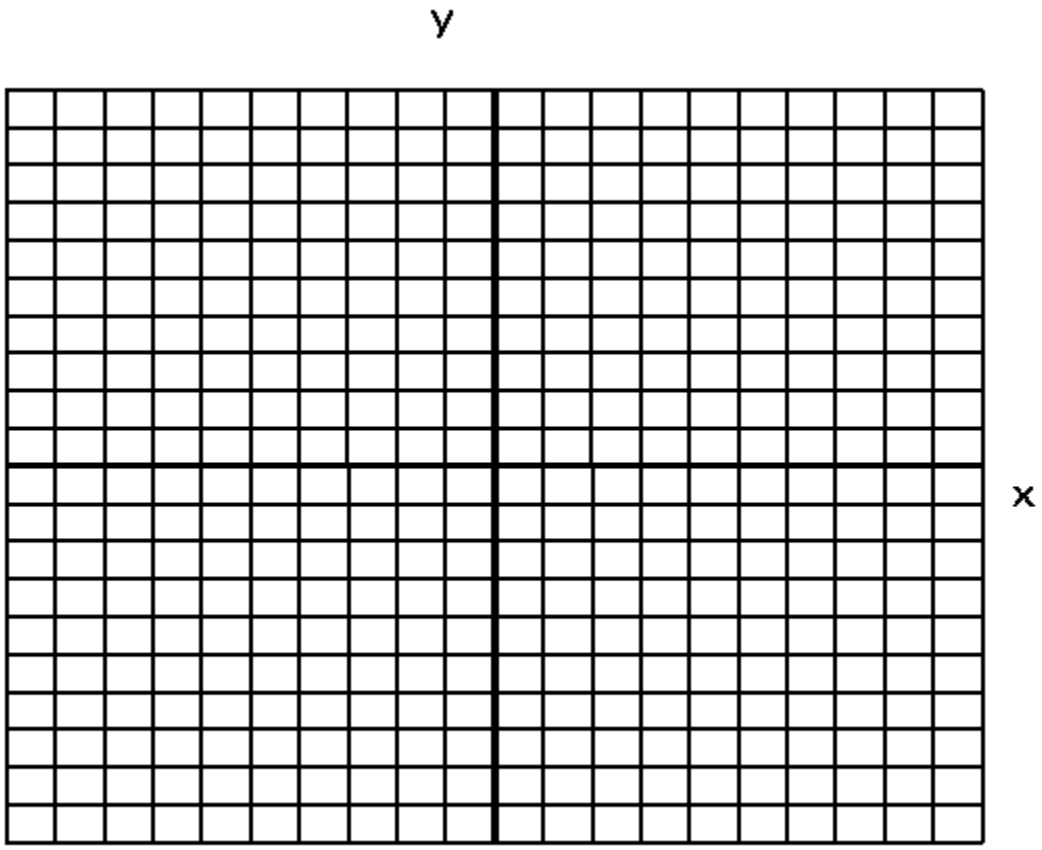
Problem

4. Write a system of linear equations to model the following situation:
The school chess club is selling T-shirts for a profit of $4.00 each and baseball caps for a profit of $5.00 each. The club wants to sell 8 items and make a profit of $35.00 in one day.
How many T-shirts and caps must they sell in one day? Solve this system of equations by graphing.
Show all your work for full marks. **(5 marks)**



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Expectation #3: Explain why systems of linear equations may have zero, one, or an infinite number of solutions.

5. Determine how many solutions there are to the following linear system without graphing.
$y = 2x + 1$
$y = -3x + 2$
Show all your work and explain why you know how many solutions exist for full marks.
(4 marks)

/ 4

6. Determine how many solutions there are to the following linear system without graphing.
Show all your work and explain why you know how many solutions exist for full marks.
$3x + y = 2$
$2y = 4 - 6x$
(4 marks)

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